

## ABSTRACT:

A multiphase LC oscillator is proposed which belongs to the so-called class, which delivers correct-by-construction I/Q signals.

Unlike state of the art I/Q LC oscillators, the proposed invention oscillates at the point where the quality factor of the resonator is maximum.

5 Hence the new multiphase LC oscillator provides also maximum carrier to noise ratio correct by construction given a certain resonator. This is realized by implementing the V/I converters which couple the N LC oscillators, with an exact  $180/N$ -degree phase shift.